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(54) Title: TRDL-1-GAMMA, A NOVEL TUMOR NECROSIS-LIKE LIGAND

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1   MPASSPFLLAPKGPPGNMGGPVREPALSVALWLSWG TRDL-1α
1   MPASSPFLLAPKGPPGNMGGPVREPALSVALWLSWG TRDL-1β
1   MPASSPFLLAPKGPPGNMGGPVREPALSVALWLSWG TRDL-1γ

37  AALGAVACAMALLTQQTELQSLRREVSRLQGTGGPS TRDL-1α
37  AALGAVACAMALLTQQTELQSLRREVSRLQGTGGPS TRDL-1β
37  AALGAVACAMALLTQQTELQSLRREVSRLQGTGGPS TRDL-1γ

73  QNGEGYPWQSLPEQSSDALEAWENGERSRKRRAVLT TRDL-1α
73  QNGEGYPWQSLPEQSSDALEAWENGERSRKRRAVLT TRDL-1β
73  QNGEGYPWQSLPEQSSDALEAWENGERSRKRRAVLT TRDL-1γ

109 QKQKKQHSVLHLVPINATSKDDSDVTEVMWQPALRR TRDL-1α
109 QKQK----------N DSDVTEVMWQPALRR TRDL-1β
109 QKQKKQHSVLHLVPINATSKDDSDVTEVMWQPALRR TRDL-1γ

145 GRGLQAQGYGVRIQDAGVYLLYSQVLFQDVTFTMGQ TRDL-1α
129 GRGLQAQGYGVRIQDAGVYLLYSQVLFQDVTFTMGQ TRDL-1β
145 GRGLQAQGYGVRIQDAGVYLLYSQVLFQDVTFTMGQ TRDL-1γ

181 VVSREGQGRQETLFRCIRSMPSHPDRAYNSCYSAGV TRDL-1α
165 VVSREGQGRQETLFRCIRSMPSHPDRAYNSCYSAGV TRDL-1β
181 VVSREGQGRQETLFRCIRSMPSHPDRAYNSCYSAGV TRDL-1γ

217 FHLHQGDILSVIIPRARAKLNLSPHGTFLGFVKL   TRDL-1α
201 FHLHQGDILSVIIPRARAKLNLSPHGTFLGFVKL   TRDL-1β
217 FHLHQGDILSVIIPRARAKLNLSPHGTFLG---L   TRDL-1γ
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(57) Abstract: The present invention relates to a novel human alternatively spliced Tumor Necrosis-Like Ligand (TRDL) (SEQ ID NO:2). Nucleic acid molecules that encode for the novel TRDL-1γ have been identified and purified. The sequence of such a nucleic acid molecule can be found at SEQ ID NO:1. Provided herein are nucleic acid molecules that encode such TRDL molecules. The present invention also provides recombinant vectors comprising nucleic acid molecules that code for TRDL-1γ. In certain embodiments, these recombinant vectors are plasmids. In certain embodiments, these recombinant vectors are prokaryotic or eukaryotic expression vectors. In certain especially preferred embodiments, the nucleic acid coding for TRDL-1γ is operably linked to a heterologous promoter. The present invention further provides host cells comprising a nucleic acid that codes for TRDL-1γ. TRDL-1 has been shown to stimulate Jurkat cell death. Moreover, TRDL-1 binds to existing members of the TNF receptor family including, FAS and HVEM. Examination of 48 tumor samples revealed high levels of TRDL-1 expression in several tumors including those from the gastrointestinal tract.

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